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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/614,136 | 07/08/2003 | Chin-Liang Lin | L9079.03103 | 5979 |

7590 11/17/2004

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EXAMINER

ALI, SHUMAYA B

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,136

Applicant(s)

LIN ET AL.

Examiner

Shumaya B. Ali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 5,6 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: detailed action.

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: regarding claim 4, the applicant failed to disclose "a hood-shaped suction nozzle" in the specification.

Claim Objections

2. Claims 5, 6 and 8 are objected to because of the following informalities: The claims are objected to under 37 CFR 1.83(a). The applicant must show every feature of the invention specified in the claims. Therefore, the L shaped suction slot in claim 5, I shaped suction slot in claim 6 and suction slot installed on the armrests in claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4,7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Inoue et al. US

Patent 5,450,894.

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3. **As to claim 1**, Inoue et al. disclose a chair (car seat) with air-curtain shield (see Fig.1 and col.16 lines 65-68) comprising an air-curtain chair (see attached Fig.1) with a main-body (see attached labeled Fig.1) and at least one set of air-suction and cleaning equipment (see Fig.1 reference objects 90 and 92) which are connected to form an air filtration and circulation system to generate air-curtain shield and filtrate the air making it suitable for cyclic-use, and the said air-suction and cleaning equipment (see Fig.1 reference objects 90 and 92) has an air suction inlet (see attached Fig.41) and an air discharging outlet (see attached Fig.41) through which when the air-suction and cleaning equipment (see Fig.1 reference objects 90 and 92) is in operation, the air is sucked into the equipment for filtration and cleaning treatment, and then discharged from the air discharging outlet (see attached Fig.41); wherein the said main-body (see attached Fig.1) of the air-curtain chair comprises a seat surface (Fig.1 reference object 50), a seat back (Fig.1 reference object 52) and two hood-walls (see attached Fig.33); the said seat back extends from the bottom at the rear edge of the seat surface upwardly and then horizontally to form a top-hood (see attached Fig.33) which, together with the hood-wall positioned on both sides of the seat back, forms a bag-shaped inner space (see attached Fig.33) inside the main-body of the said air-curtain chair, at the two corners along the front edge of the seat surface are the suction slots (see Fig.4B reference object 60) arranged in a manner symmetric to each other with an air suction tube connector installed at its bottom, and the air suction tube connector (see attached Fig.41) is connected to the air suction inlet (see Fig.41) of the said air-suction and cleaning equipment by means of an air suction tube (see Fig.41 reference object 201); inside the seat back and the top-hood is an air flow passage (Fig.1 reference object 66) extended from the bottom of the seat back to the front edge of the top-hood with an air supply tube connector (see attached Fig.41, Fig.1 reference object 64) installed at the end of the bottom portion of the seat back which is connected to the air discharging outlet (see attached Fig.41) of the said air-suction and cleaning equipment

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by means of an air supply tube (see Fig.41 reference object 203), and at the bottom of the top-hood (see attached Fig.33) near the front edge is an air outlet (see Fig.1 reference object 72) which can generate an air-curtain shaped flow stream with a range covering at least the whole front edge of the said seat surface (see attached Fig.1).

4. **As to claim 2**, Inoue et al. disclose an air outlet (see attached Fig.41) is located at the bottom of the said top-hood at the location corresponding to the air suction slot on the said seat surface (see Fig.1 reference objects 60, 72, col.16 lines 60-68, and col.17 lines 2-5).

5. **As to claim 4**, Inoue et al. disclose the air suction slot positioned at the corner of the said seat surface (see attached Fig. 1 reference object 60) has outer width of slot opening greater than the inner width of the opening to form a hood-shaped nozzle (see attached Fig.4B, col.11 lines 33-38).

6. **As to claim 7**, Inoue et al. disclose the air suction slots at the corners of the said seat surface are in rectangular shape (see Fig.4B reference object 60 and col.7 lines 42-44).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Claims 3,5,6,8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. US Patent 5.450,894

7. **As to claim 3**, Inoue et al. disclose the opening of air outlet at the bottom of the top hood are air flow guide (see Fig.1 reference object 72) which can make the air flow stream a downward lamina flow in vertical (downward) direction (see col.9 lines 34-42). One of ordinary skills in the art would find it obvious

to produce the same outcome (downward lamina flow in vertical direction) using the one guide plate disclosed by Inoue et al. or several guide plates claimed by the applicant.

8. **As to claims 5 and 6**, a close review of specification reveals that the applicant did not establish any criticality of the L and I shaped suction slots. Therefore, it would have been obvious to one of ordinary skills in art to design a suction slot L or I shaped for the purposes of meeting their design preference.

9. **As to claim 8**, Inoue et al. disclose two suction slots, however do not disclose the suction slots are installed on the armrests of the main-body of the said air-curtain chair, and the air suction and flow passage is formed by the inner cavity of the armrest. A close review of specification reveals that the applicant did not establish any criticality regarding the location of the suction slot. Therefore, the suction slots being secured either at the corners of the seat surface (see attached Fig.1 reference object 60) as disclosed by Inoue et al. or in the inner cavity of the armrest are both capable of creating negative pressure inside the suction slot for the purposes of sucking air into the air-suction and cleaning equipment through the suction effect of the suction slot.

10. **As to claim 9**, applicant considers medical level air-suction and cleaning equipment comprising an air suction inlet (see attached Fig.41), an air discharging outlet (see attached Fig.41) and an air filtration-sterilization unit (compressor and condenser) (see attached Fig.1 reference objects 90 and 92). Therefore, it would have been obvious to one of ordinary skill in the art to consider the air suction and cleaning equipment as disclosed by Inoue et al. to be equipment of medical level.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. US Patent 5,450,894 in view of Ammouri US Patent 6,471,754 B2

11. **As to claim 8**, Ammouri teaches a purification system for tobacco generated secondhand smoke comprising a chair with armrests where a conduit (flow passage) disposed in an arm (inner cavity of the

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armrest) leads to a electrically powered electrostatic suction filter assembly (see Figs.1, 2,3 reference objects 30,24,22 respectively and col.2 lines 60-64).

12. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to relocate the suction slots of Inoue et al. in view of Ammouri in order to construct another embodiment of the applicant's invention with slots built in the inner cavity of both arms of the car seat for the purposes of directing air flow in the vertical downward direction as well as increasing overall suction efficiency.

Conclusion

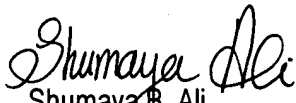
13. The prior art of record and not relied upon is considered pertinent to applicant's disclosure. US 3039817 A, US 3935803 A, US 4606259 A, US 4660464 A, US 4850791 A, US 5085134 A, US 5158150 A, US 5160517 A, US 5865880 A, US 5904755 A, US 6068322 A, US 6109688 A, US 3462920 A, JP 01300145 A, JP 03140105 A, JP 06221639 A, JP 10165625 A, JP 10176856 A, JP 10176857 A, JP 2000175772 A, US 20020129710 A1, US 20040009746 A1. These prior arts of record show general overview of an air purification system with air-curtain.

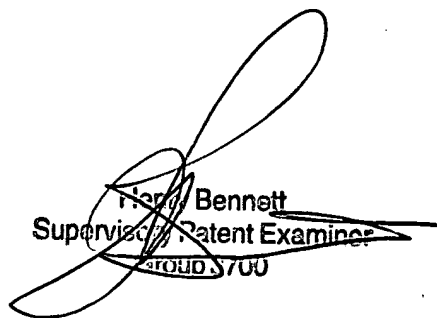
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shumaya B. Ali whose telephone number is 703-305-0247. The examiner can normally be reached on M-F 8:30 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 703-308-0101. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Shumaya B. Ali
Examiner
Art Unit 3743


Henry Bennett
Supervisory Patent Examiner
Art Unit 3743

Prior Art
Inoue et al. Sep. 19, 1995
U.S. Patent 5,450,894

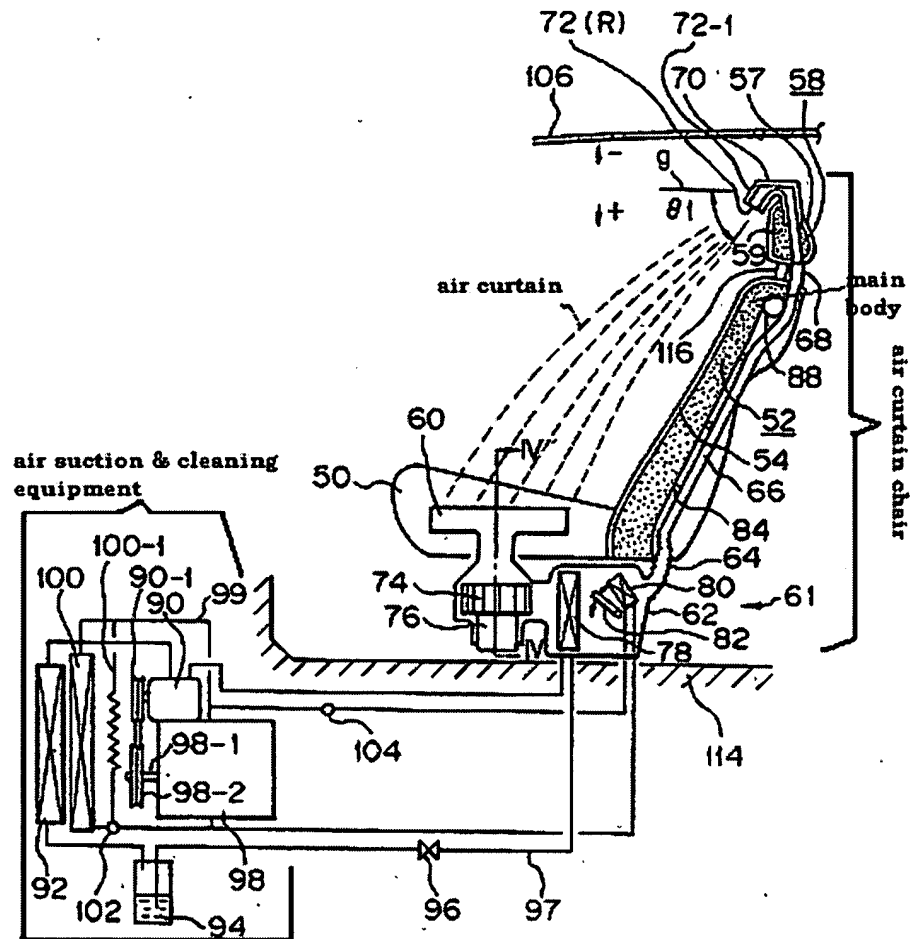


Fig. 1

Fig. 4(B)

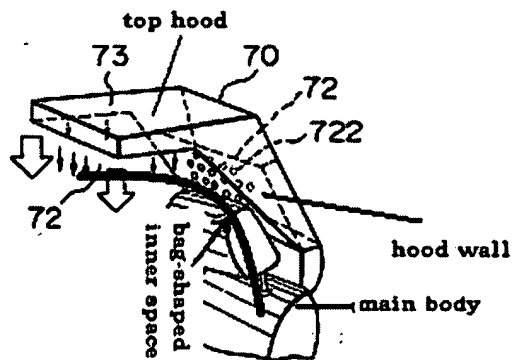
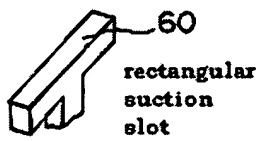


Fig. 33

Prior Art
Inoue et al. Sep. 19, 1995
U.S. Patent 5,450,894

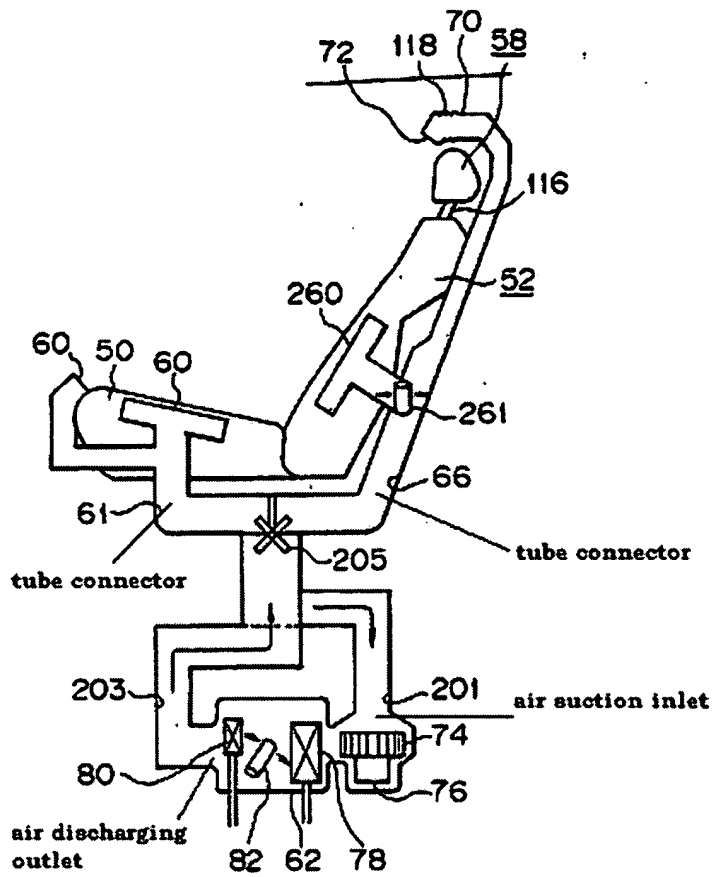


Fig. 41

Prior Art
Inoue et al. Sep. 19, 1995
U.S. Patent 5,450,894